U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Fleet Management Catalog of Services

The U.S. Department of Energy Federal Energy Management Program

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FEMP
Federal Energy Management Program

Contents

Executive Summary

The mission of the Federal Energy Management Program's (FEMP) Sustainable Federal Fleets program is to assist agencies with meeting or exceeding their requirements for reducing fleet petroleum consumption. FEMP accomplishes this by providing agencies with technical assistance, analysis and tools, training and outreach, guidance for understanding and meeting Federal requirements, and assistance with fulfilling reporting requirements.

Federal fleets have numerous energy-related mandates, but all support the primary goal of reducing petroleum consumption. Executive Order 13514 requires Federal agencies to reduce petroleum consumption (gasoline and diesel) in their fleets by 2 percent per year, or 30 percent total, by fiscal year 2020 from a fiscal year 2005 baseline.

In support of that goal, agencies also have requirements to increase alternative fuel consumption, acquire alternative fuel vehicles, and develop plans for reducing petroleum consumption. Refer FEMP's Sustainable Federal Fleets website (http://energy.gov/eere/femp/sustainable-federal-fleets) for more information about each of the requirements.

Planning Phase

The planning phase for reducing fleet petroleum consumption entails understanding the current characteristics of the fleet's fuel consumption and vehicle inventory, identifying potential petroleum-reduction measures, estimating the projected impact and cost of each measure, and prioritizing the measures to determine which to implement first. FEMP's Sustainable Federal Fleets program offers multiple services to assist agencies with their planning.

Services

- Strategic plan to reduce fleet petroleum consumption and greenhouse gas emissions
- Fleet fueling pattern analysis
- Business case analysis for retail alternative fuel infrastructure
- Analysis of local options for reducing petroleum consumption
- Deployment potential of new alternative fuel vehicle technologies

1 Strategic Plan to Reduce Fleet Petroleum Consumption and Greenhouse Gas Emissions

1.1 When

Agency is trying to establish an overarching strategy and relative priorities for reducing greenhouse gas emissions and petroleum consumption by its fleet vehicles. (Note: In general, actions taken to reduce fleet greenhouse gas emissions will reduce petroleum consumption, and vice versa.)

1.2 Description

FEMP's greenhouse gas mitigation strategic planning framework is designed to assist agencies with achieving their greenhouse gas and petroleum reduction goals in the most cost-effective manner. FEMP will train key agency personnel on using the strategic planning framework and accompanying website. FEMP will walk through the steps of the strategic planning process with agency personnel, using the agency's actual fleet data to collaboratively develop a prioritized list of projects for reducing fleet greenhouse gas emissions and petroleum consumption. The steps of the strategic planning process include assessing future changes in agency size, evaluating the agency's current emissions profile, evaluating the relative impacts of potential greenhouse gas reduction strategies (various strategies for reducing vehicle miles traveled, improving the fuel efficiency of vehicles, and using alternative fuels), estimating implementation costs for each strategy, prioritizing strategies (based on relative cost or other agency-specific factors), and establishing appropriate internal reduction targets for agency component organizations and local fleets.

End result: Insight on an appropriate, overarching strategy for the agency's fleet sustainability initiatives, as well as a prioritized list of projects for reducing the fleet's greenhouse gas emissions and petroleum consumption. Agency will be armed with a plan for achieving its greenhouse gas and petroleum reduction goals in the most cost-effective manner.

1.3 How to Order

Complete the fleet management technical assistance form:
https://www4.eere.energy.gov/femp/assistance/

1.4 Next Step

Incorporate the agency's prioritized list of projects into the Strategic Sustainability Performance Plan (SSPP) and set to work implementing the agency's highest-priority projects.

2 Fleet Fueling Pattern Analysis

2.1 When

Better understanding of current fueling patterns for the agency's vehicles would provide insight on opportunities for reducing petroleum consumption at a local level.

2.2 Description

FEMP will analyze the fuel transaction data of the agency's GSA-leased vehicles and compile information (maps, summary tables, etc.) on where and when the vehicles fuel up, as well as what types of fuel they use.

End result: Information on fueling stations used, types of fuel pumped, proximity of stations to mission locations, nearby alternative fuel stations, time of fuel transactions, etc. Also, recommendations for altering fueling patterns to achieve greater reductions in petroleum consumption.

2.3 How to Order

Complete the fleet management technical assistance form:
https://www4.eere.energy.gov/femp/assistance/

2.4 Next Step

Analyze correlations between fueling patterns and missions of vehicle drivers. Use the information provided by the fueling pattern analysis to establish policies and take actions to alter driver fueling patterns to reduce the fleet's petroleum consumption.

3 Business Case Analysis for Retail Alternative Fuel Infrastructure

3.1 When

Local agency fleet is interested in building the business case for a retail fueling station to install alternative fuel infrastructure for use by the agency's vehicles.

3.2 Description

FEMP will analyze the fuel transaction data of the local fleet's GSA-leased vehicles, estimating the fleet's potential demand for alternative fuel at a given retail station. FEMP will also develop rough estimates of the demand for alternative fuel by vehicles outside of the agency fleet, and of the cost for the station to install alternative fuel infrastructure.

End result: Assessment of the business case, or lack thereof, for a local retail fueling station to install alternative fuel infrastructure that agency vehicles could use. This includes predicting demand for alternative fuel and comparing infrastructure cost with potential revenue from alternative fuel sales.

3.3 How to Order

Complete the fleet management technical assistance form:
https://www4.eere.energy.gov/femp/assistance/

3.4 Next Step

If analysis shows positive business case, engage with retail fueling station owner – or work with FEMP to engage with owner – about having the owner install alternative fuel infrastructure. In some cases, FEMP may have a relationship with a fuel provider who is also motivated to engage with the owner about installing alternative fuel infrastructure.

4 Analysis of Local Options for Reducing Petroleum Consumption

4.1 When

Local agency fleet is deliberating about which strategy to pursue for reducing its petroleum consumption, specifically when the potential strategies will necessitate considerable investment in vehicles and/or alternative fuel infrastructure. For example, the local fleet is trying to decide whether to focus on acquiring hybrid vehicles that consume readily-available gasoline or on acquiring E85 flex-fuel vehicles and installing E85 fueling infrastructure for the vehicles to use.

4.2 Description

FEMP will analyze the composition of the local fleet, its fueling patterns, the costs of alternative fuel vehicles and necessary alternative fuel infrastructure for each strategy, the potential petroleum reduction for each strategy, and other factors to inform a decision about which strategy to pursue.

End result: Assessment of estimated costs and petroleum reduction for each potential strategy, and a recommendation of which strategy to pursue.

4.3 How to Order

Complete the fleet management technical assistance form:
https://www4.eere.energy.gov/femp/assistance/

4.4 Next Step

Make a final decision about which strategy to pursue, based on the results of the analysis and agency priorities, or present the results of the analysis to agency management for them to make a decision. Then take steps to implement the chosen strategy.

5 Deployment Potential of New Alternative Fuel Vehicle Technologies

5.1 When

Agency is considering an initiative to deploy a new, or perhaps underused, alternative fuel vehicle technology in portions of its fleet. For example, agency leadership is interested in deploying more natural gas vehicles, but the agency has little to no experience with these types of vehicles in the fleet.

5.2 Description

FEMP will conduct a virtual overlay of current vehicle locations and locations of alternative fuel infrastructure of the target type, identify vehicles that would be good candidates for replacement with the new alternative fuel technology, and overlay current vehicle types with models available through GSA of the new alternative fuel type.

End result: Identification of existing fleet vehicles that would be good candidates for replacement with vehicles of the target alternative fuel technology.

5.3 How to Order

Complete the fleet management technical assistance form:
https://www4.eere.energy.gov/femp/assistance/

5.4 Next Step

If existing fueling infrastructure is to be used, confirm the infrastructure's suitability for use by the fleet with the infrastructure owner. In addition, discuss with GSA a replacement schedule for the vehicles targeted to be replaced with the new alternative fuel technology.

Implementation Phase

The implementation phase of reducing fleet petroleum consumption entails implementing the top-priority petroleum reduction measures identified during the planning phase. It also entails continuous improvement in the understanding of data pertaining to the fleet's fuel consumption, vehicle inventory, and performance patterns. FEMP's Sustainable Federal Fleets program offers multiple services to assist agencies with implementing measures for reducing petroleum consumption.

Services

- Fuel consumption dashboard (FleetDASH)
- Outreach to increase alternative fuel use in dual-fuel vehicles
- Strategic selection and placement of alternative fuel vehicles
- Gain access to private alternative fuel infrastructure

1 Fuel Consumption Dashboard (FleetDASH)

1.1 When

Agency's dual-fuel vehicles are missing opportunities to use alternative fuel instead of petroleum when the alternative fuel is available nearby. (Section 701 of the Energy Policy Act of 2005 requires Federal agencies to operate dual-fuel vehicles – those that can operate on alternative fuel or petroleum – on alternative fuel unless DOE determines that a vehicle qualifies for a waiver from this requirement.)

1.2 Description

FEMP's Fleet Sustainability Dashboard (FleetDASH) tracks fuel consumption of all types for GSA-leased vehicles by using credit card transaction data. FleetDASH displays fuel consumption information at the agency level, and also allows users to drill down to study the fuel consumption of agency components and even individual vehicles. FleetDASH empowers fleet managers to reduce petroleum consumption by identifying successes and addressing missed opportunities to use alternative fuel when it was available nearby. The dashboard maps the location of a missed opportunity and the nearby fueling stations where alternative fuel was available. It also provides information about the vehicle and the vehicle point of contact.

End result: Provision of a dashboard updated monthly with fuel transaction data for the agency's GSA-leased vehicles.

1.3 How to Order

Complete the fleet management technical assistance form:
https://www4.eere.energy.gov/femp/assistance/

1.4 Next Step

Refine the way the agency's organizational structure appears in FleetDASH by providing NREL with the desired organizational structure for associating vehicle and fuel transaction data with specific fleets within the agency. Request FleetDASH log-in accounts for fleet managers throughout the agency so that they can use the information in FleetDASH to improve the performance of their fleets. Conduct outreach to agency components and local fleet managers to motivate reductions in missed opportunities.

1.5 Information Resources

View a sample dashboard at https://federalfleets.energy.gov/FleetDASH/

2 Outreach to Increase Alternative Fuel Use in Dual Fuel Vehicles

2.1 When

Agency is tracking fuel consumption with FEMP's Fleet Sustainability Dashboard (FleetDASH) but is unsure of how to proceed with applying the information provided by FleetDASH to reduce petroleum consumption, and specifically to reduce missed opportunities to use alternative fuel in dual-fuel vehicles.

2.2 Description

FEMP can assist an agency's headquarters fleet manager with conducting outreach to local fleet managers and vehicle drivers in the field, with the purpose of motivating improvements in alternative fuel use in dual-fuel vehicles. Outreach will typically take the form of e-mail messages to local fleet managers and drivers, although other forms of communication are possible. FEMP will generate e-mail messages through FleetDASH, showing the local fleet manager's or driver's petroleum consumption, alternative fuel consumption, and missed opportunities, and comparing performance to that of the organization or agency. The e-mail messages will also feature links to view the driver's missed opportunities, as well as to FEMP guidance and on-line training on alternative fuel use requirements.

End result: Local fleet managers and drivers receive feedback through e-mail messages on their alternative fuel use and are provided with information for improving their performance.

2.3 How to Order

Complete the fleet management technical assistance form:
https://www4.eere.energy.gov/femp/assistance/

2.4 Next Step

Work with FEMP to track correlations between e-mail messages (who opens e-mails, clicks on links to training within the e-mails, etc.) and subsequent performance of the drivers, based on data in FleetDASH.

2.5 Information Resources

Complying with the EPAct 2005 Section 701 Requirement to Use Alternative Fuel in Dual-Fuel Vehicles: https://www4.eere.energy.gov/femp/training/training/complying-epact-2005-section-701-requirement-use-alternative-fuel-dual-fuel-vehicles

3 Strategic Selection and Placement of Alternative Fuel Vehicles

3.1 When

Agency could reduce petroleum consumption further through improvements in the selection and placement of individual, alternative fuel vehicles.

3.2 Description

FEMP can make recommendations for the optimal alternative fuel vehicle to replace each existing vehicle in the fleet (when the vehicle becomes eligible for replacement), based on local alternative fuel availability, fuel efficiency of models available through GSA, agency budget, and other factors. The recommendations are made with the goal of maximizing reductions in petroleum consumption. The recommendations can assist an agency with planning for achieving its optimal vehicle inventory and acquiring only alternative fuel vehicles by December 31, 2015, in accordance with the requirements of the *Presidential Memorandum on Federal Fleet Performance* of May 2011.

End result: Recommendations for the optimal alternative fuel vehicle to replace each existing vehicle in the fleet (when the vehicle becomes eligible for replacement).

3.3 How to Order

Complete the fleet management technical assistance form:
https://www4.eere.energy.gov/femp/assistance/

3.4 Next Step

Use the recommendations to complete annual vehicle orders through GSA. In subsequent years, work with FEMP to receive an updated set of recommendations and provide feedback on how the recommendations might be further refined to meet the agency's needs, based on any challenges experienced with implementing the prior recommendations.

4 Gain Access to Private Alternative Fuel Infrastructure

4.1 When

A fleet has little to no retail alternative fuel infrastructure nearby and is interested in gaining access to private alternative fuel infrastructure, such as that owned by other Federal agencies, state or local governments, or companies.

4.2 Description

FEMP will identify agency fleet locations where gaining access to private alternative fuel infrastructure would result in the greatest reductions in petroleum consumption. In those priority locations, FEMP will identify private entities owning infrastructure and contacts within those entities. FEMP will reach out to the contacts to understand what conditions – including conditions regarding security, payment methods, and fuel volume available – would allow the fleet to access the private infrastructure. Finally, FEMP will connect the local fleet manager with the private infrastructure owner to make official arrangements – if necessary, including signed agreements. (Note that gaining access to particular private infrastructure is not always possible.)

End result: Where possible, an arrangement between agency fleet and private alternative fuel infrastructure owner to allow agency fleet drivers to access the fueling infrastructure.

4.3 How to Order

Complete the fleet management technical assistance form:
https://www4.eere.energy.gov/femp/assistance/

4.4 Next Step

The local fleet manager should try to use the infrastructure by him- or herself, or with fleet drivers, to confirm that getting access to the infrastructure goes smoothly. The local fleet manager should announce that the private infrastructure is now accessible to fleet vehicles, and that drivers should use the infrastructure to refuel their vehicles.

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